

Application No. 09/331,723
Amendment dated December 22, 2006
Reply to Office Action of November 22, 2005

Docket No.: 2185-0156P

REMARKS

Status of the Claims

Claims 48-71 are currently pending in the application. Claims 1, 2, 4, 6, 7, 10-16, 18, 20-24 and 43-49 stand rejected. Claims 48 and 49 have been amended as set forth herein. Claims 1, 2, 4, 6, 7, 10-16, 18, 20-24 and 43-47 have been cancelled herein. All amendments and cancellations are made without prejudice or disclaimer. New claims 50-71 have been added herein. No new matter has been added by way of the present amendments.

The amendments to claim 48 are clarifying amendments only and are non-narrowing amendments. The amendment to claim 49 is to remove text and to change dependency to claim 48.

New claim 50 is supported by claim 2.
New claim 51 is supported by claim 4.
New claim 52 is supported by claim 6.
New claim 53 is supported by claim 7.
New claim 54 is supported by claim 43.
New claim 55 is supported by claim 44.
New claim 56 is supported by claim 45.
New claim 57 is supported by claim 46.
New claim 58 is supported by claim 10.
New claim 59 is supported by claim 11.
New claim 60 is supported by claim 12.
New claim 61 is supported by claim 13.
New claim 62 is supported by claim 14.
New claim 63 is supported by claim 15.
New claim 64 is supported by claim 16.
New claim 65 is supported by claim 18.
New claim 66 is supported by claim 20.
New claim 67 is supported by claim 21.
New claim 68 is supported by claim 22.

Application No. 09/331,723
Amendment dated December 22, 2006
Reply to Office Action of November 22, 2005

Docket No.: 2185-0156P

New claim 69 is supported by claim 23.
New claim 70 is supported by claim 47.
New claim 71 is supported by claim 24.
Reconsideration is respectfully requested.

Interview

Applicants and Applicants' representatives thank the Examiner for agreeing to discuss the present application briefly during an interview on December 21, 2006. During the conversation we discussed the potentially outstanding objection to the specification. (See, Office Action of November 22, 2005, at page 2, hereinafter, "Office Action"). It was brought to the Examiner's attention that at page 2, paragraph 2, the Examiner withdrew the objection to the specification under 35 U.S.C. § 132. However, at paragraph 5, of page 2 of the Office Action, the Examiner appears to begin to draft a further objection to the specification. During the interview, the Examiner clarified that paragraph 5 of page 2 of the Office Action should be cancelled and that there is no outstanding objection to the specification. The remainder of the substance of the interview is substantially as set forth in the Interview Summary made of record of December 21, 2006.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1, 2, 4, 6, 7, 10-14 and 43-46 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. (See, Office Action, at page 3). Claims 1, 2, 4, 6, 7, 10-14 and 43-46 have been cancelled herein without prejudice or disclaimer, thus obviating the rejection as to these claims.

Rejections Under 35 U.S.C. § 112, First Paragraph

Written Description

Claims 1, 2, 4, 6, 7, 10-16, 18, 20-24 and 43-47 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. (See, Office

Application No. 09/331,723
Amendment dated December 22, 2006
Reply to Office Action of November 22, 2005

Docket No.: 2185-0156P

Action, at page 3). Claims 1, 2, 4, 6, 7, 10-16, 18, 20-24 and 43-47 have been cancelled herein without prejudice or disclaimer, thus obviating the rejection as to these claims.

Enablement

Claims 1, 2, 4, 6, 7, 10-16, 18, 20-24 and 43-49 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. (See, Office Action, at page 4). Claims 1, 2, 4, 6, 7, 10-16, 18, 20-24 and 43-47 have been cancelled herein without prejudice or disclaimer, thus obviating the rejection as to these claims. Applicants traverse the rejection as to claims 48 and 49 as follows.

The Examiner states that since methods of gene targeting through homologous recombination were not known in the art for plant species other than *Chlamydomonas* at the time of the instant invention, undue experimentation would be required by one skilled in the art to use the claimed method to confer resistance to PPO-inhibiting herbicides upon all plants or plant cells. (*Id.* at page 5). The Examiner further states that "Puchta discusses the state of gene replacement by homologous recombination in plants, and teaches that efficient gene targeting techniques in higher plants have not yet been achieved." (See, Office Action of January 16, 2003, at page 12, lines 5-7, referring to Puchta, *Plant Mol. Biol.*, 48:173-182, 2002, hereinafter, "Puchta").

Thus, it appears that the Examiner is applying a higher burden of proof to the issue and has shifted focus to a broad assertion against homologous recombination in plant. However, as reported by Puchta, there were several publications disclosing homologous recombinations performed in plants at the time of the instant invention. Puchta reported that a significantly high frequency of gene targeting in plants has not been achieved. However, regarding the present invention, as disclosed in the specification (for instance, at page 17, lines 6 to 11), plant cells resistant to PPO-inhibiting herbicides due to the presence of the altered PPO coding sequence may be isolated by growing the population of the plant cells on media containing an amount of PPO-inhibiting herbicide which normally inhibits growth of the untransformed plant cells. Accordingly, one of ordinary skill in the art may screen plant cells resistant to PPO-inhibiting herbicides efficiently, even if frequency of homologous recombination in plants is low.

**RECEIVED
CENTRAL FAX CENTER**

DEC 22 2006

Docket No.: 2185-0156P

Application No. 09/331,723
Amendment dated December 22, 2006
Reply to Office Action of November 22, 2005

Therefore, because claims 48 and 49 are believed to be fully enabled as of the filing date of the present application, and as evidenced by Puchta, reconsideration and withdrawal of the enablement rejection of claims 48 and 49 are respectfully requested.

CONCLUSION

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a five (5) month extension of time for filing a reply in connection with the present application, and the required fee of \$2,160.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Thomas J. Siepmann, Ph.D., Reg. No. 57,374 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: December 22, 2006

Respectfully submitted,

By 

Gerald M. Murphy, Jr.

Registration No.: 28,977

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicants